



Immunization Information System (IIS) Electronic Data Exchange Fact Sheet and Onboarding Checklist

Introduction

TennIIS is a free, secure, and easy-to-use online registry of vaccinations received by Tennessee residents and managed by the Tennessee Department of Health. TennIIS can be utilized by healthcare providers, pharmacists, schools, and childcare administration to access and update vaccination records.

For eligible professionals and hospitals, participation in Electronic Data Exchange with TennIIS is a valid public health reporting measure under the federal Centers for Medicare and Medicaid Services (CMS) electronic health record incentive programs. These programs include Meaningful Use (MU) and Merit Based Incentive Payment System (MIPS).

Electronic Data Exchange and Meaningful Use

Eligible Professionals (EPs), Eligible Hospitals (EHs) and vendors seeking to participate in the CMS Electronic Health Record (EHR) Incentive Program can exchange data with the state of Tennessee through TennIIS.

Electronic data exchange (EDE) may be achieved using any of the following methods:

Submission-Only Messages (VXU Update): Submission-only connections electronically update TennIIS with immunizations given in the practice. To see doses given at any other site that submits data to TennIIS, the provider must manually access the patient record in TennIIS. Submission-only messaging meets Meaningful Use Stage 2 minimum requirements.

Bidirectional Messages (QBP Query and VXU Update): Bidirectional messaging electronically updates TennIIS with immunizations given in the practice, and enables providers to view and/or upload vaccine information from other sources in the provider's EHR. Clinical staff will not need to login to TennIIS to check for records of shots given elsewhere. Bidirectional messaging meets Meaningful Use Stage 3 minimum requirements. Tennessee does not implement *query only* connections.

Note: QBP and VXU are specific types of Health Level Seven (HL7) standard message formats that TennIIS can accept from EHR systems. TennIIS is currently capable of establishing electronic data exchange using HL7 version 2.5.1 standard messages in accordance with the Centers for Disease Control and Prevention (CDC) HL7 Version 2.5.1 Implementation Guide for Immunization Messaging Release 1.5, 10/01/2014.

Message Transport Options:

- **Secure File Transport (SFTP):** Used to electronically exchange batched immunization messages.
- **Web Services:** Current implementation of Web Services supports Asynchronous communication ("near real-time" messaging) and is implemented by Basic Authentication over SSL. For copies of the WSDL please send an email request to TennIIS.MU@tn.gov.
- **Regional Health Information Organizations (RHIOs):** Facilities may elect to establish electronic data connections through a Health Information Exchange (HIE) or a RHIO. The East Tennessee Health Information Network (eTHIN) can connect with TennIIS. Please contact the HIE or RHIO in your region for additional information.

EPs/EHs or vendors seeking to establish a connection with TennIIS using either method listed above should complete the tasks in the **Onboarding Checklist** to obtain more information and begin the process of electronic data exchange.

Onboarding Checklist

Purpose

The purpose of this document is to provide trading partners with all the steps required to successfully exchange data electronically with the immunization registry. The Onboarding Checklist is for providers, hospitals, and their vendors or business associates.

Phase 1: Registration with Public Health Agency (PHA)/Tennessee Department of Health (TDH)

Trading Partner (TP) Activity	Complete	Date	TDH Response	Via
*Complete registration of intent at https://apps.tn.gov/tpr/	<input type="checkbox"/>		Send MU registration confirmation to registrant	Email
Vendor and potential trading partner review Onboarding Packet, choose a Message Transport Option, and sign requested IT Transport Paperwork	<input type="checkbox"/>		Acknowledge that submitted paperwork was received. Set up transport for trading partner.	Email
Vendor and potential trading partner complete the TPA forms and sign the document	<input type="checkbox"/>			Email

Message Transport Options*	Option Chosen
Secure File Transport (SFTP) <ul style="list-style-type: none"> a. Trading Partners will be limited to a maximum of 2000 messages per batch. b. Trading Partners may also send a batch with less than 20 messages for fast batch processing. c. Trading Partners shall not send multiple contiguous batches containing only one message. d. Trading Partners must place a 5 minute interval between transmissions. 	<input type="checkbox"/>
Web Services <ul style="list-style-type: none"> a. Trading Partners to use TDH WSDL for both sending and receiving messages. b. Trading partner must contact the TennIIS team to obtain the username and password since the communication is SOAP/Basic authentication over SSL. c. Trading partner must install Web-services Client since the communication is SOAP/Basic authentication over SSL. d. Trading partner must provide their Web-services Client username and password to the TennIIS team. e. Trading Partners must provide their Web-services URL to the TennIIS team. 	<input type="checkbox"/>

***Note:** TP should discuss message transport options with vendor before indicating to TennIIS team the desired option.

Phase 2: Staging Process for Testing HL7 Message Quality

Trading Partner (TP) Activity	Complete	Date	TDH Response	Via
Establish secure transport and test connection with TDH IT	<input type="checkbox"/>		Acknowledge that transport connectivity test completed	Email
Submit CVX code mapping and descriptions to TDH for review	<input type="checkbox"/>		Acknowledge that CVX code mapping table was received and reviewed	Email
Enter patients into EHR and transport HL7 files to TennIIS Staging Environment. Ensure that all VXU and QBP thresholds* are met. Email TDH that files have been uploaded.	<input type="checkbox"/>		Review HL7 files data quality and send results to vendor and provider for correction	Email
Continue to transport HL7 files until specified thresholds are met	<input type="checkbox"/>		TDH notifies trading partner when they are approved to move into Production; Updates transport to Production	Email

VXU and QBP Message Specified Onboarding Thresholds*	Complete
VXU Message Scenarios and Thresholds:	
a. Administered and Historical immunizations	<input type="checkbox"/>
b. Child and Adult immunizations	<input type="checkbox"/>
c. Update to an immunization	<input type="checkbox"/>
d. Deletion of an immunization	<input type="checkbox"/>
e. Refusal of an immunization (Optional, only if you intend to document and submit refusals.	<input type="checkbox"/>
f. Contraindication to an immunization	<input type="checkbox"/>
g. A minimum of 50 to 250 VXU messages with no fatal errors for final review	<input type="checkbox"/>
QBP Message Scenarios and Thresholds (Bi-Directional Only):	
a. Query for a child	<input type="checkbox"/>
b. Query for an adult	<input type="checkbox"/>
c. Query for a patient that does not exist in the IIS	<input type="checkbox"/>
d. Query for a patient which matches to multiple patients	<input type="checkbox"/>
e. Query for a patient with a contraindication to an immunization	<input type="checkbox"/>
f. A minimum of 50 QBP messages with no fatal errors for final review	<input type="checkbox"/>

***Note:** Each of these thresholds/scenarios must be submitted to the Staging Environment before a Trading Partner is approved for Production. Refer to the VXU and QBP 2.5.1 Technical Specifications and the CDC 2.5.1 Implementation Guide for guidance on creating HL7 messages for each scenario.

*** Note:** VXUs must be sent before QBPs to successfully query existing patients.

Phase 3: Production

Trading Partner (TP) Activity	Complete	Date	TDH Response	Via
Continue ongoing submissions	<input type="checkbox"/>		<i>Ongoing:</i> Monitor quality of messages on a weekly basis	N/A
Correct any issues identified by TDH in a timely manner	<input type="checkbox"/>		Respond to trading partner inquiries regarding system or data quality issues	Email

CDC Implementation Guide

- HL7 2.5.1 <https://www.cdc.gov/vaccines/programs/iis/technical-guidance/downloads/hl7guide-1-5-2014-11.pdf>

Vaccines Administered Code Set Tables

- HL7 Standard CVX Code Set Table <http://www2a.cdc.gov/vaccines/IIS/IISStandards/vaccines.asp?rpt=cvx>

- CPT Codes Mapped to CVX Codes <http://www2a.cdc.gov/vaccines/IIS/IISStandards/vaccines.asp?rpt=cpt>

- HL7 Standard MVX Code Set Table <http://www2a.cdc.gov/vaccines/IIS/IISStandards/vaccines.asp?rpt=mvx>